

## 5.3 - BUFFER AREA MODIFICATION VIOLATIONS

### PURPOSE:

The purpose of this chapter is to provide guidance on how to address violations, such as illegal clearing activities. The guidance includes a discussion of some causes for violations, how they may be prevented, and a local government may address the violations that do occur.

### REGULATIONS:

§ 9 VAC 10-20-130.3 states:

“To minimize the adverse effects of the human activities on the other components of the Resource Protection Area, state waters, and aquatic life, a 100-foot wide buffer area of vegetation that is effective in retarding runoff, preventing erosion and filtering nonpoint source pollution from runoff shall be retained if present and established where it does not exist.”

§ 9 VAC 10-20-130.5.a states:

“In order to maintain the functional value of the buffer area, existing vegetation may be removed, ***subject to approval by the local government***, only to provide for reasonable sight lines, access paths, general woodlot management, and best management practices, including those that prevent upland erosion and concentrated flows of stormwater, as follows...”



### DISCUSSION:

In order for the buffer to be effective in preventing erosion, filtering nonpoint source pollution and retarding runoff, existing vegetation must be preserved. The value of the various layers of vegetation of the buffer in protecting water quality has been discussed in other chapters of this document. The buffer is best left undisturbed in its natural state. Modifications (vegetation removal activities) within the buffer should always be reviewed and approved by the local government according to their locally adopted ordinance.



Improper removal of existing buffer vegetation is one of the more serious issues associated with maintenance of the buffer area. When property owners and/or developers remove excessive amounts of vegetation from the buffer area without local government approval, or in some cases despite local guidance, the clearing is considered in violation of the regulations. Some examples of buffer violations include removal of trees and other woody vegetation for yard areas, expansive unrestricted vistas, or other buffer uses such as permanent boat storage.

Some property owners have replaced the woody vegetation with a turf-grass lawn, which does not provide the pollutant removal and retardation of runoff that a woody buffer, with an undisturbed groundcover of leaves, twigs and duff provides. While an un-mowed meadow may provide some of the buffer functions, a mowed lawn does not meet the same level of functioning as a forested buffer. In addition, fertilizers and weed control chemicals used to support a residential lawn may be washed into adjacent waters,



### ***COMMON REASONS FOR VIOLATIONS:***

There are many reasons that violations may occur, but the following are the more frequent reasons that excessive vegetation is removed:

#### ***Lack of Knowledge***

Many homeowners are unaware of the Chesapeake Bay Preservation Act, or do not think it applies to them. They may not understand the purpose of buffers or the requirements that do apply to them. People who move in from out of state are especially unlikely to be aware of the Bay Act. Consequently, they may remove vegetation without consulting the local government for guidance and approval.

#### ***Invisibility***

The location of the buffer boundary is usually not marked or visible on the ground, so its location is assumed and the buffer is treated more like a setback line than an edge beyond which activity is limited. This may result in the yard gradually encroaching into the buffer diminishing the width of the buffer over time.

#### ***Deliberate destruction:***

Some homeowners are aware of the buffer requirements, but chose to eliminate all woody vegetation, believing that replacement with turfgrass is equally effective and acceptable.

### **AIDS TO PREVENTION OF BUFFER DESTRUCTION:**

Including the buffer limits on all construction drawings could help clarify the limits for those involved in construction activity.

Some local governments require permanent markers or signs to show the limits of the buffer. This helps prevent inappropriate impacts to the buffer.

Education of owners, developers, contractors and realtors about the Bay Act and the importance of buffers could help eliminate unintentional buffer removal.

Some local governments have decided to enact additional setbacks to provide further protection from construction impacts or gradual yard encroachments



adding to the pollutant load.

Local governments often have difficulties in tracking and responding to buffer violations. In many instances it is difficult, after the fact, to ascertain what type and amount of vegetation was cleared; therefore, determining restoration quantities based on what was originally there is not feasible. Use of an established vegetation replacement standard would help in such instances, and would assure consistency among projects.

### ***Discovery of Violations***

Violations are usually discovered when a citizen or neighbor calls about removal of vegetation in the buffer, or when a local inspector, such as an erosion and sediment control or zoning inspector, notes the violation as part of their site inspection. Most local governments do not have staff exclusively dedicated to investigating buffer violations and most rely on citizen calls or local inspectors to identify violations.



### ***Procedural Issues***

Localities process confirmed violations in a variety of ways. Many localities do not currently have a formal, established process for buffer violations, but rely on informal meetings and conversations with the property owner or contractor to develop acceptable mitigation or remediation solutions. Other localities send a Notice of Violation or other zoning violation letter to the property owner with a follow-up visit to the owner on site to discuss remediation requirements and enter into a restoration agreement. Some localities clearly stipulate mitigation and remediation requirements in the violation letter. Some localities now require a letter of agreement or other performance guarantee to assure plant replacement survival.

When a violation cannot be resolved through the types of measures outlined above, local governments have used both crimi-

nal and civil processes to address the violations. Some local governments have indicated that criminal cases are more difficult for them, because some criminal judges are not familiar with the Bay Act program and the intricacies of its regulatory requirements. However, at least one local government has had success in criminal cases because the locality has urban foresters on staff who can effectively prepare court case materials and testimony.

Although not used extensively by local governments, civil cases can result in fines that can then be used by the local government for restoration projects on public lands or to help fund their water quality improvement programs. Civil cases may go to local elected bodies for decisions that may establish a fine or levy civil charges in addition to requiring restoration of buffer vegetation.

Local ordinance language needs to be in place to allow for either civil or criminal proceedings to be used. When a local government has included the Bay Act requirements as a zoning overlay district, civil penalties included in the local zoning code may be applied. Other localities have adopted the civil penalties clause from the Bay Act itself to support assessing civil penalties for violations of Bay Act requirements, including buffer area violations.

### ***Buffer Violation Mitigation***

Localities normally require the re-establishment of vegetation in the buffer area to remediate the improper removal of vegetation; however most do not have consistent buffer restoration standards. Local governments currently use a variety of options for addressing vegetative replacement when violations occur. Some of these options include:

- Requirements that trees and sometimes shrubs must be replaced at a one-to-one or two-to-one ratio.
- Specific vegetation replacement standards in their ordinance.
- Requirements that replacement be based on the sampled density of species in adjacent undisturbed buffer areas.
- Reliance on staff judgment to decide vegetation replacement ratios on a case-by-case basis.

Suggested standards for vegetative replacement ratios can be found in *Appendix D. Chapter 5* and the *Appendices* contain

additional information on suggested vegetative replacement standards, plant lists and planting details. Local governments are encouraged to develop replacement policies appropriate for their jurisdictions.

When considering buffer violations and remediation, the survival of replacement species should be part of the restoration agreement. Again, some local governments employ performance guarantees to ensure the viability of replacement vegetation. Withholding certificates of occupancy until plantings are installed has been used as well. However, this can be unreasonable if the house is completed outside of a planting season.

Experts consulted in the development of this guidance indicated that a minimum time frame to ensure survival of replacement species would be two years. However, one expert indicated that five years would be preferable to ensure plant viability when smaller seedling and bare-root stock has been planted.

### ***Educational Efforts***

Given that one of the greatest threats to a riparian forested buffer is removal of vegetation resulting from a lack of understanding of buffer functions and benefits for water quality, local governments should have educational materials about buffers available for their citizens. Educating local homeowners on the importance of the buffer area and the activities allowed within it will help prevent many violations. Clarity about what may or may not be removed and what requires local government approval should be included. Realtors should also be educated about the buffer so that they can learn to market the positive aspects of a forested buffer and make accurate statements about what can be removed from the site.

Most local governments do not have sufficient staff to conduct frequent site visits to assure that the buffer is protected during construction. Additional training for erosion and sediment control, zoning and building inspectors may be a cost effective way to better track buffer area violations.

Localities should contact the Department for information on what educational programs other Tidewater localities have developed. Some localities have produced informational videos and

brochures addressing buffer issues. CBLAD is also producing a small buffer brochure that can be distributed by localities.

**CONCLUSIONS:**

- In addition to showing the limits of the 100-foot wide buffer on property boundary plats, the local government should require the limits to be clearly marked on all site plans, construction drawings, grading plans and planting plans and indicate limits of construction outside of the buffer.
- Pre-construction meetings with the owner and contractor should include a discussion of buffer protection measures during construction.
- Local governments need to establish a consistent process for dealing with buffer violations, including consistent and appropriate vegetation replacement standards.
- Procedures should be codified where possible to ensure consistent application of mitigation and replacement standards.
- Civil charges may be helpful to augment buffer restoration and other water quality improvement efforts of a local government and could serve as a deterrent to future violations.
- Criminal charges may be necessary in extreme cases, as a last resort, provided adequate case preparation provides reasonable expectations of success in court.

**RECOMMENDED PROCEDURES FOR LOCAL GOVERNMENTS:**

- Local governments should first conduct a site visit to determine whether a violation has occurred. Documentation should include a written report and corroborative

photographs.

- Local governments should send a notice of violation when a buffer violation is confirmed. If the site is under active construction, localities may have the authority to issue a stop-work order to assure that no additional land disturbance or removal of buffer vegetation occurs until the violation is resolved.
- Local governments should require the property owner to develop a mitigation plan based on local vegetative replacement standards applied consistently.
- Local governments should have a list of approved plants for replacement vegetation to ensure that exotics and invasive plant materials are not used. A suggested list of native plants can be found in *Appendix A* of this manual.
- Although native grasses may be a component of a successful buffer restoration plan, lawn grass should never be the predominant replacement vegetation. Clearing woody vegetation and replacing it with a maintained lawn is inconsistent with the Regulations.
- As with buffer establishment, a three tiered approach for buffer mitigation and replacement should be applied for buffer area violations. Localities should refer to *Chapter 5 - Buffer Establishment*, for information on buffer replacement.
- Some local governments may have the authority to require a performance guarantee to ensure the survival of replacement vegetation. An inspection should be made after at least two years prior to release of the guarantee.